

AMENDMENTS TO THE CLAIMS

1-143. (Cancelled)

144. (Currently Amended) An apparatus for preparing a patient for radiation treatment in a radiation device that directs a radiation beam to a beam isocenter, the apparatus comprising:

a wireless marker configured to be implanted in the patient relative to a target
wherein the marker is energized or excited by an excitation source
positioned exterior of the patient;

a movable patient support having a platform and a drive system to move the platform, wherein the platform is configured to situate the patient so that the marker can be sensed by a plurality of sensors in a fixed and known geometry relative to each other and the radiation beam can irradiate the patient; and

a computer including computer operable instructions that cause the computer to perform the method of (a) receiving position information of the marker provided by the sensor, (b) determining a location of the marker relative to a reference frame using the position information, and (c) computing a displacement between the location of the marker and a desired location for the marker, wherein the target is located at a desired situs in the reference frame when the marker is at the desired location for the marker.

145. (Currently Amended) An apparatus for preparing a patient for radiation treatment in a radiation device that directs a radiation beam to a beam isocenter, the apparatus comprising:

a wireless marker configured to be implanted in the patient relative to a target
wherein the marker is energized by an external excitation source;

- a movable patient support having a platform and a drive system to move the platform, wherein the platform is configured to situate the patient so that the marker can be sensed by a plurality of sensors in a fixed and known geometry relative to each other and the radiation beam can irradiate the patient; and
- a computer including computer operable instructions that cause the computer to perform the method of (a) receiving position information of the marker provided by the sensor, (b) determining a location of the target relative to a reference frame using the position information of the marker, and (c) computing a displacement between the location of the target and a desired location of the target in the reference frame.

146. (Currently Amended) An apparatus for preparing a patient for radiation treatment in a radiation device that directs a radiation beam to a beam isocenter, the apparatus comprising:

- a wireless marker configured to be implanted in the patient relative to a target wherein the marker is not physically connected with an outside energy source;
- a movable patient support having a platform and a drive system to move the platform, wherein the platform is configured to situate the patient so that the marker can be sensed by a plurality of sensors in a fixed and known geometry relative to each other and the radiation beam can irradiate the patient; and
- a computer including computer operable instructions that cause the computer to perform the method of (a) receiving position information provide by the sensor related to the location of the marker, (b) determining an actual location of the target in a reference frame based on the position information of the marker, (c) moving the patient according to the actual location of the target if a displacement between the actual location of the

target and a desired location for the target is beyond an acceptable range, and (d) tracking the target relative to the reference frame by repeating the receiving and determining procedures.

147. (Currently Amended) An apparatus for preparing a patient for radiation treatment in a radiation device that directs a radiation beam to a beam isocenter, the apparatus comprising:

a wireless marker configured to be implanted in the patient relative to a target
wherein the marker is energized or excited by an excitation source positioned exterior of the patient;

a movable patient support having a platform and a drive system to move the platform, wherein the platform is configured to situate the patient so that the marker can be sensed by a plurality of sensors in a fixed and known geometry relative to each other and the radiation beam can irradiate the patient; and

a computer including computer operable instructions that cause the computer to perform the method of (a) receiving position information provided by the sensor related to the location of the marker, (b) determining an actual location of the marker based on the position information, (c) moving the patient according to the actual location of the marker to reduce a displacement between an actual location of the target and a desired location of the target, and (d) tracking the target during movement of the patient by repeating the receiving and determining procedures while moving the patient.

148. (Currently Amended) An apparatus for preparing a patient for radiation treatment in a radiation device that directs a radiation beam to a beam isocenter, the apparatus comprising:

- a wireless marker configured to be implanted in the patient relative to a target
wherein the marker is not physically connected with an outside energy source;
- a movable patient support having a platform and a drive system to move the platform, wherein the platform is configured to situate the patient so that the marker can be sensed by a plurality of sensors in a fixed and known geometry relative to each other and the radiation beam can irradiate the patient; and
- a computer including (a) a memory containing a target coordinate relative to a desired situs of the target in a reference frame, and (b) computer operable instructions that cause the computer to perform the method of (i) determining a three-dimensional marker coordinate defining an actual location of the marker and being relative to an actual location of the target in the reference frame, and (ii) computing a three-dimensional displacement between at least one of (1) the marker coordinate and the target coordinate and/or (2) the actual location of the target and the desired situs of the target.

149. (Currently Amended) An apparatus for preparing a patient for radiation treatment in a radiation device that directs a radiation beam to a beam isocenter, the apparatus comprising:

- a wireless marker configured to be implanted in the patient relative to a target
wherein the marker is energized by an external excitation source;
- a movable patient support having a platform and a drive system to move the platform, wherein the platform is configured to situate the patient so that the marker can be sensed by a plurality of sensors in a fixed and known

geometry relative to each other and the radiation beam can irradiate the patient; and

a computer including (a) a memory containing a target coordinate of a desired situs of the target relative to a reference frame, and (b) computer operable instructions that cause the computer to perform the method of (i) determining a three-dimensional marker coordinate, (ii) calculating an actual location of the target based on the three-dimensional marker coordinate, and (iii) computing a three-dimensional displacement between the actual location of the target and the target coordinate.

150. (Currently Amended) An apparatus for preparing a patient for radiation treatment in a radiation device that directs a radiation beam to a beam isocenter, the apparatus comprising:

a wireless marker configured to be implanted in the patient relative to a target
wherein an excitation source is configured to remain outside the patient;

a movable patient support having a platform and a drive system to move the platform, wherein the platform is configured to situate the patient so that the marker can be sensed by a plurality of sensors in a fixed and known geometry relative to each other and the radiation beam can irradiate the patient; and

a computer including (a) a memory containing a desired situs of the target relative to a reference frame, and (b) computer operable instructions that cause the computer to perform the method of (i) determining a three-dimensional marker coordinate based on position information of the marker obtained from the sensor, and (ii) computing a displacement between the three-dimensional marker coordinate and a desired marker location for the marker, wherein the target is located at the desired situs when the marker is located at the desired marker location.